

Association For
**PHYSICAL &
MENTAL
REHABILITATION**



BI-MONTHLY ISSUE

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**FIRST SCIENTIFIC AND CLINICAL SESSION OF THE
ASSOCIATION FOR PHYSICAL AND MENTAL REHABILITATION**

I would like to give my sincere thanks to the fine group of speakers and members of Association attending the First Scientific and Clinical Session of the Association for Physical and Mental Rehabilitation for their interest and cooperation in making the first Convention highly successful.

I would also like to welcome the new officers elected--President--Jack Jones, Atlanta, Georgia; Vice President--Leo Berner, New York; President Elect.--Sam Borchov, Long Island, New York; Secretary--Carl Purcell, Hines. Hospital, Chicago.

Thanks is also extended to the former officers--President--Chris Kopf and Vice President--Allen Powers for the excellent job while in office.

Orchids to Roland Schwartz for his fine cooperation as Assistant Chairman of the Convention and excellent job presiding.

Thanks to General Paul R. Hawley and personnel from Central Office for the fine cooperation given us in making this Convention possible.

The First Convention of the Association marked a milestone in the formulation of a new profession. The success of the meeting was due largely to the excellent cooperation and splendid scientific contributions made by those who participated in the program. It is my feeling with the cooperation and interest given our Association by many of the leading specialists, that recognition by A.M.A. will be in the near future.

It will be four or five weeks before scientific contributions to the Association will be compiled.

**Paul Roland
Director Publications and Research**

PAPER PRESENTED BY MR. ROLAND C. SCHWARTZ AT THE
HEALTH AND PHYSICAL EDUCATION DEPARTMENT PANEL OF THE A.M.A.

Executive Officer
Medical Rehabilitation Section
Veterans Administration

During my service in the ETO, I worked on the staff with General Paul E. Hawley, Surgeon General, ETO, U.S.A., and under Colonel Rex Dively and Colonel Frank Stinchfield, who headed the Medical Rehabilitation Program and I should like to state the following thought made by these gentlemen in regard to the Corrective Physical Reconditioning Program. They all agreed that one of the major factors in the success of the rehabilitation program in the ETO was the splendid therapeutic work that was accomplished by the Corrective Physical Reconditioning Instructors.

A few of the reasons why this program was so successful in the corrective physical reconditioning department were that --

1. These men were given a thorough course on the over-all aspects of reconditioning with emphasis on the treatment aspects.
2. They had at their disposal for observation, research and training, the British Reconditioning Program which has been functioning for over 100 years -- Sir Watson Jones, one of the outstanding orthopods, headed this phase of the program for the British. Many valuable lessons were gathered from this source of experience and training. The plan that was utilized in the U.S. Army Medical Program was along the lines of the British program in rehabilitation except that we utilized our own means of physical education from the standpoint of the American approach to the patient -- psychologically, philosophically, and sociologically.
3. Continuous in-service training was, at all times, being carried out, and all personnel were thoroughly inculcated on all phases of the Rehabilitation Program.

The splendid work that this group contributed to the recovery of the American soldier can best be testified to by the fact that a similar program in Corrective Physical Rehabilitation was established in Veterans Administration Hospitals as an integral part of the Medical Rehabilitation Program.

I recently made a survey in our Branch area, asking the doctors if they felt that any of the personnel in the Medical Rehabilitation Program were considered 'surplus', and there was not a single instance where any doctor or Manager of a Veterans Administration Hospital thought that the Corrective Physical Rehabilitation Department were superfluous and not doing a constructive, professional job of treatment in rehabilitating the Veteran. This survey was made in hospitals varying in size from 150 to 3500 beds. At this time in our Branch area, there still is a need for qualified Corrective Physical Rehabilitation Instructors.

In the future, we hope to open a Medical Rehabilitation Center just outside of Chicago and will need an additional staff of 25 trained Corrective Physical Rehabilitation Instructors.

I feel that the immediate problem confronting this department is one of proper professional training. A graduate of a college or university who has majored in physical education is not qualified to step into a position in a hospital and competently administer treatment. This can be remedied by revising or adding to the curriculum in the college or university. There should be additional courses in anatomy, physiology, kinesiology, remedial recreational therapy, dynamic courses in psychology, medical ethics, and all phases of therapeutic exercises in adapted games and sports for the handicapped.

I am confident that the research department that has been developed by the Association for Physical and Mental Rehabilitation, and the Health and Physical Education Association, will do much toward remedying these existing conditions.

There has been a question asked whether the Corrective Physical Rehabilitation Instructor should attempt to qualify himself as a physical therapist. My feelings on this matter is that each department is a specialized

field and has its own limitations. There are many phases in physical therapy that the Corrective Physical Rehabilitation Instructor has not the qualifications or the training to handle. Concomitantly, there are many phases of work in the Corrective Physical Rehabilitation Department that the physical therapists are not qualified to delve into.

We must remember that the Corrective Physical Rehabilitation Department works, not only in General Medicine and Surgery Hospitals, but in Neuro-psychiatric Hospitals. Here, the Corrective Physical Rehabilitation instructor can utilize objectively his training in physical education -- not only the corrective muscular re-educational factors, but the proper attitude therapy and therapeutic aims both psychologically and sociologically afforded in game and sport patterns. Here again the Corrective Physical Rehabilitation instructors must have a thorough understanding of dynamic psychology, so that he can intelligently fulfill the prescriptions by the psychiatrist.

I should like to summarize my discussion by again stating that the uppermost problem is one of education; that the new Corrective Physical Rehabilitation men entering the field who have not had the value of the specialized training both academically and clinically afforded by the Armed Forces, are at a tremendous disadvantage. However, we must go further than in-service training in trying to develop a program in the higher schools of learning for this adjunctive phase of physical medicine in order to achieve A.M.A. recognition which is so important for the future welfare of this department of medical rehabilitation.

TRICKS TO MAKE GOING TO SLEEP FUN

by

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We do not know what causes sleep, but we do know what causes insomnia. It is tension pure and simple -- tension in the back muscles, tension in all the muscles we use while moving or thinking, tension in any of the many muscles of the body. The tension may be left over from too much work or hurry during the previous hours, or it may be due to mental activity or worry at the moment when sleep is desired. Keep the muscles from getting too tense and the mind from staying too active, if you would sleep at will.

Under peculiar circumstances, individuals have been known to go without sleep for weeks at a time. The body seems to get along fairly well, but the mind of the ordinary individual becomes disturbed and annoyed under conditions of sleeplessness. The truth is that if the body can get enough physical relaxation, it does not wear out. The mind, on the other hand, very frequently. Existence for most people is so boring, or so irritating, or so unsatisfying, that the mind has to be given an escape from reality once in a while. Insomnia never made a person ill, but it has driven many a person almost crazy.

Sleep should be understood as a device of nature for giving the body occasion to rest, and the mind opportunity to forget. There is no reason to become agitated or fearful because of sleeplessness or insomnia; that would be "insomniphobia," and just as needless or pathetic as any phobia. Instead of worrying and fretting about inability to sleep, the sane procedure is to approach insomnia directly, doing things which will make the body rest and the mind forget. Then you will be unable to stay awake and will slip into a state of sleep.

Remember that most people sleep best when they have a regular sleep schedule. In fact, all of the processes of the body work best when they are on schedule. The stomach digests food best if meals are regularly spaced.

Before becoming concerned about how to fall asleep at will, let us face frankly the problem of establishing a fairly systematic routine between times for being awake and times for being asleep. The average person, who is trying to keep to a daily work schedule, does not have to give much thought to this problem. He has to go to work at a certain hour, so he plans to get up a certain length of time in advance. He comes home at a certain time. He eats the first meal of the day at a certain time and he plans to go to bed in order to get some rest before he must get up again. He may not be absolutely regular in this schedule and therein may lie some of his trouble about sleeping; but, at least, he has to get up each day and busy himself with pursuits associated with an active life, and he has to lie down again each night to recuperate from this active life.

The person who is confined to bed because of accident or disease may be forbidden, for a time, to live a very active life. He may not be allowed to get up, actually, for a day's work or a day's play. If he is to sleep well, however, he must "get up" psychologically and physically, at regular intervals. He must have a routine for working and for sleeping just like his more active fellows. He may "get up" at seven o'clock in the morning to have his face washed and to have his breakfast. He may "get up" again four hours later to be wheeled out into a pavilion to listen to music or to hear a lecture, and may stay there until after lunch. Then he may "get up" again at three o'clock to go to the crafts class and may "stay up" until after supper to take part in other occupations and to enjoy the visitor's hour.

Between these times of "getting up" he will have times of "going to bed," figuratively if not actually! He may "go back to bed" for a morning nap and for an afternoon nap, as well as for his night's sleep. The point is that he must get himself into a wholesome routine of waking and sleeping if he is to get the most out of either.

TEN TRICKS TO INDUCE SLEEP

In the following pages are described ten tricks to induce sleep. They have all proved successful for someone. They have not been arranged in any special order of efficiency. Perhaps the first one will work for you. Maybe the fourth or the seventh will prove to be your trick. Perhaps you can make a combination of several of them. All that is necessary is to try each suggestion until it has had a chance to work. Two weeks is an approximate length of time to give any trick a fair trial. If habits of sleeplessness are deeply entrenched, and have been operating for a long time, it is logical that opposite habits of falling to sleep may take some time to take hold.

A simple trick and one that often works for the busy person is to prepare for sleep by cutting down on the intensity of thinking for about a half hour before retiring. People who are deeply immersed in the work of the world are not the only ones who may need to cut down on the intensity of their thinking in order to woo sleep. People who are temporarily shut away from the currents of events may be doing a lot of thinking, also. They may be planning future careers for themselves, or thinking about the numerous ways the world must be changed in order to make it a fit place for their loved ones, or they may be worrying about little matters affecting only themselves. It is nonsensical to think that people who are in bed are protected from life's troubles. In their minds they may be in the midst of troubles. They, too, may need to prepare for sleep by cutting down on the intensity of thinking.

Just before turning out the lights is a good time to write those "thank you" notes -- the ones which must be written sometime, but which take very little imagination and are really boring. It is a good time, also, to listen to the radio or the victrola -- to music which is not exhilarating, but which is meaningful and satisfying. The masterpieces, which live on generation after generation, have a message at retiring time for the individual who is distressed with life's burdens. If it is easy to find a companion, retiring time may provide an excellent opportunity for a game of chinese checkers or of dominoes. If there is no companion available, a crossword puzzle or a hand of Canfield may achieve the same results of getting the mind off the cares of the day and into a mood for sleep. Take plenty of time to get ready for sleep.

Another trick for use when retiring is to take plenty of time to get ready for sleep. Do not hurry. There are many little homely personal chores to do at this time. A woman may curl her hair -- putting it up in an intricate manner, depending upon the current mode. A man may shave himself then instead of in the morning. Both of them may massage the feet, or take some deep breathing exercises, or write up their diaries. If you once had a regular routine for retiring, try to revive it. Perhaps you used to wash out your underclothes and socks. Maybe you used to select your wardrobe for the next day and get it arranged on a chair near your bedside. If you are unable to do things like this now, go through the motions, as it were, by watching your nurse or companion go through the motions of settling you down for the night. Enjoy the routine from beginning to end. Don't miss a detail. After your light is out, listen to the preparations for retiring of adjoining beds or inadjoining rooms, and think, "Isn't this all fun? Being civilized creates a lot of trouble. Getting ready for sleep in a nice, clean place like this is quite a ritual," etc., etc. But rituals get us ready for experiences, and sleep is an ex-

perience worth treating respectfully.

If you are not quite ready for sleep, you may be able to keep your light on and may read for a little while. The trick about reading in preparation for sleep is to choose a "hard" book. Do not select exciting fiction or mystery stories. These will keep you awake "until the next chapter is finished." Choose something that will bore you a little, but something which you really want to master eventually. As soon as you find that your mind is not following your eyes, and is lagging behind, close the book and turn out the light. Sleep will be just beyond the next breath.

If you find it wiser not to use your own eyes for the acquiring of book knowledge, and if you must arrange to have someone else read to you, do not let him choose exciting material if he is reading to you just before you wish to drop off to sleep. Let him supply the same kind of "hard" substance you would choose for putting yourself to sleep.

Concentrate on topics which have no connection with your problems.

After the lights are out, and all is still, your thoughts may come back to mock you and to plague you into staying awake. Do not let them. Determine to concentrate on a topic which has no connection with your problems. Remember that no one can think of two problems or even two topics at the same moment. So learn to discipline yourself by shifting your thoughts on to a topic with no emotional flavor.

People who can concentrate well can always learn to sleep at will. Napoleon had the reputation of falling asleep under very trying circumstances -- even an hour or so before battle. His own explanation was that he "closed all the drawers of his mind," and so had no thoughts to keep him awake.

Until you have mastered the techniques of closing all the drawers of your mind, shutting off all ideas, try to keep just one "drawer" open -- and

that particular drawer the one which is filled with pretty things or relatively useless things. For example, you might plan a new wardrobe or a new arrangement of the furniture in your room. You might just make a list, in your mind, of all possible objects falling into a selected category. For example, you might think of the names of streets in a city like Boston, or the names of girls or boys in your graduating class at high school or college, or things you would need to buy in furnishing a living room for the first time, or what towns you would pass through on a trip to Chicago or New Orleans, etc.

If your mind begins to approach your persistent problem of that day you will have to switch it back to looking into that single "drawer." You cannot afford to let it get away from your control. Don't be like the coat and suit manufacturer who decided to count sheep and then let his mind carry him to the following debacle. After he had counted all the sheep jumping over the wall, he sheared them all, spun all the wool, wove it all into cloth, made the cloth all up into suits, carried all the suits to New York himself, and was forced to sell at a loss of four dollars and a half on each suit. That man should have stopped counting those sheep the moment they began to produce wool, for business. He needed to open a different "drawer" in his mind -- one farther removed from the problems nagging at him and prohibiting his sleep.

Let the mind hop from one inconsequential item to another. The last mental trick in this list of ten to promote sleep is a little more subtle. Just at the moment a person is falling asleep his mind begins to wonder from one rather inconsequential item to another. The mind seems to become disorganized. It even picks out of past memory items of a bizarre and thoroughly disjointed nature. Why not try to cultivate this little game that the mind plays with itself, just before it slips into dreaming or into total unconsciousness.

To help the mind to wander in safe pastures, start by thinking of some enjoyable episode of the past. Recall a party during childhood. Think of all the people who were there; recall how they looked, what you had to eat, which games you played. Then let your mind go hopping around. You wonder where Jack is now. You recall how pretty Jane was. She must be married now. You wonder what kind of home she has. If it is back in the town where you all lived as children it must have a nice yard with a garden. About this time of the year they must be studying seed catalogues to decide what to plant this season. The earth will look so red and rich when it is turned up. What fun you used to have playing in mud -- sloshing in rain puddles -- wearing your yellow slicker -- yellow is a warm colour -- it is fun to be in the sun -- but things sometimes burn -- your back now feels warm and tingly -- it feels warm -- it doesn't feel any more--- ---. You are asleep.

This game is lots of fun, this letting the mind race around from one inconsequential focus to another. And it feels so good to escape from the troubles of the present into the comforts afforded both by the psychological escape through imagination and the physical coeiness of the bed. Any time you wish to try this trick you can start a new train of thoughts; and if you persist in helping the mind to hop, you will not use up many ideas any one time. There will be many, many left for other times when you are sleepless.

You will not need more than five physical tricks to help you to go to sleep. You may not even need one, if your psychological games have worked their charm. On the other hand, if you try the physical tricks first, and find some of them to be effective, you may not need to use any psychological tricks. Sleep is a psycho-physical state. So is insomnia. In its more extreme degrees it represents a true vicious circle and can be upset in any one of its aspects either psychological or physical.

In your own quest to overcome sleeplessness, try both types of tricks in any order you choose. The effect of any one may not be immediate, but you can be sure that if you give as long as two weeks to the conscientious trying of any trick, its effect will not be entirely lost. The next trick may appear to be effective just because of what has gone before.

Much has been said in advocacy of the hot bath before retiring. Actually a tepid bath is preferable. For the first physical trick, try the tepid immersion bath or a cooling alcohol rub. The principle is to cool the skin and to stimulate the circulation very slightly, thereby inducing the body to the surface. This technique for bringing about relaxation has been used very effectively even for manic cases in hospitals for psychopathic patients. When any of us get irritable and slightly manic, we can use the "cold pack" for ourselves. We can lower the temperature of the surface of the body by a tepid or cool bath, leave the surface slightly damp, and then let the body cuddle itself into drowsiness in a relatively warm bed. A bed should never be too warm. In line with the above suggestion, one may throw off the bed clothes altogether in the middle of the night for a few seconds as a substitute for a cool bath, and then let the body cuddle itself again. This latter technique might be called the air bath, and it, too, should be cool rather than hot. Heat, as an aid to relaxation, is effective only in local areas, to relieve pain. When used for any length of time over large areas, it has too disturbing an effect on the circulation to be safe.

Get rid of any pressure or constriction on the body.

The next physical trick is to get rid of any pressure or constriction on the body. Many people use too heavy blankets, or keep their bedclothes pulled too taut. Many people do not wear loose enough night clothes for comfort in bed. A baggy gown or shirt is preferable to pajamas, the crotches

of which may bind and annoy. These details may seem inconsequential, but they may be the "matters" that keep you awake.

If you have a particularly sensitive part of the body, treat that part like a baby, as you are putting it to sleep. If the walls of the stomach seem to cramp and cause colic, take a hot drink, or rub some linament on the surface of the abdomen, or try a hot water bottle. A physician may even recommend a special drug to ease discomfort when it is time for sleep. He will not approve the taking of pills to induce sleep directly, as readily as he will medicines especially prepared for specific organs. Never take a drug at bedtime or at any time, without a physician's prescription. People have done themselves more harm than good by self-medication or by following "tips" given by well-meaning relatives and friends. Even the bromides so easy to obtain from drug stores are dangerous. It is possible to get a poisoning from them which, after a few doses, will do just the opposite of helping you to sleep.

Although the medical profession will criticize you sternly for "doctoring" yourself, it will never criticize you for making parts of your body more comfortable by rest positions. If a foot bothers you, raise it on a soft pillow and take a tuck in the bed clothes so that there is extra fullness about it. If a knee throbs, slip a small but firm pillow under it. If the hip joint is uncomfortable, raise the knee high enough by pillows to ease the pull above. Pack small pillows on either side of the thigh, so that it will not roll. Your mattress will have to be very firm if the back gives you any trouble. You may get surprising comfort from a hard roll under your lower back. A blanket roll may be adjusted to the correct thickness, and stretched across the bed under the sheet and well tucked under the mattress. If you should turn on your side during the night, the roll would fill in the

curve at the side of your waist. If you should turn all the way over on to your abdomen, you would slide up a bit, letting the roll fit just under your hip joints. If your neck feels painful, you can use a similar roll, or you can make a nest of your pillow and tuck the lower corners firmly against your neck so that your head cannot roll. Just try to cradle the head, even if you do not have neck ache, and see how good it feels.

Try to relax the muscles completely. After you get into a fairly comfortable position, try to relax the muscles completely. This trick is hard to achieve, but it will always bring results. You cannot stay awake, if you can relax all your muscles. Do not be discouraged if this trick is difficult. Probably you had better try to learn it some time during the day when you are not too tired, and when you are not concerned primarily with going to sleep. Conscious relaxation is valuable for many purposes -- to ease pain, to decrease irritability, to help one be composed, to make physical work more efficient, etc., etc. One of the purposes may be to induce sleep.

Ability to relax at will is achieved most readily when it is practiced just as a skill until it is mastered without relationship to any specific purpose. When a purpose is foremost, the emotional setting is too disturbing. Relaxing is a skill. Just as a tennis player must practice back strokes hundreds of times before he goes into match play, so a person who desires to relax at will must practice letting go of the tension in numerous muscles of the body before doing the same when under strain.

You may need the help of a teacher or a physical therapist to get all the tension out of your muscles, but you can make a good start by yourself. Perhaps a start is all you need. Don't work on the most tense part of the body first. Try the right arm, if it is not the offending member. Make it as rigid and stiff as possible. Feel where the muscles tighten. Then let go soft gradually. After they seem to be as soft as you can make

them, do not be satisfied. Say to the, "Go on, farther, and farther, and don't you dare tighten up again." Let the arm lie absolutely still. Do not move it for at least fifteen minutes. Just keep telling it to go looser and looser. Perhaps that is enough to try the first day. On the next one, at the time you have set aside for conscious relaxing, let the right arm start out to relax without being made especially tense in contrast. Then work on the left arm, as you did previously on the right. Let them both be passive for at least fifteen minutes. On another day, get the arms into as quiet a state as possible, and then work on one leg. Tense it by making it rigid. Feel the excess tension in it as you have in the arms. Then let it relax on and on, past the place where it seems to want to let go on this first day. After a few periods of practice you will find that relaxation gets deeper and deeper.

After you are satisfied that your arms and legs do not hold any residual tension when you will them to relax, begin to work on the muscles of the back. Lie flat on your back on the floor or on a very hard mattress. Arch your back so that your weight is held on your skull and on your seat. Feel where the muscles tighten, then let them go less tight and less tight, until they seem to have no firmness at all. Stay in this utterly useless state for at least fifteen minutes. Don't try particularly to go to sleep.

You have not learned how to relax the muscles of seeing and speaking yet. These muscles used in seeing and speaking are very closely associated with mental activity. When you can relax them you will be unable to stay awake under any circumstances. The books mentioned at the end have detailed suggestions about how to relax the muscles of the eyes, forehead, jaw, throat and thorax. You can get numerous suggestions from them, if this little tip doesn't work. Put a dark cloth over your eyes to shut out light and let the muscles of your face stop puckering. Stop puckering your brow and squinting,

stop moving your eyes, stop pursing your lips, stop tightening your cheeks, stop clenching your jaw, stop pointing your tongue, stop doing anything. Do nothing. Be dumb. And stay dumb for several minutes. If you fall asleep during the practice period it will not matter. If you are in a room with others they will waken you. If you are by yourself, you may wish to set an alarm clock to warn you that your practice period is over. When you learn to relax properly you will and should lose all track of time.

After you have learned how to relax you can use some of the skills at various times of the day, to relieve tension in muscles not needed for the task that is at hand. For example, you can do away with excess tension in the legs while you are typing or eating your meals. You can do with the minimum of tension in the arms when you are walking around or talking with your friends. You can learn to be more comfortable all the time by saving energy you used to throw away. Then, after you have learned how to relax in any or all parts of the body, you can put that skill to work when you desire to go to sleep. Remember that you cannot stay awake when you relax far enough.

Imitate slow, deep, rhythmical breathing. In watching a tense person you will notice that his breathing is shallow and choppy. He may even speak with hesitancy or harshness. In watching a really relaxed person sleep you will notice that his breathing is slow, relatively deep, and rhythmical. A fourth physical trick for relaxing is to imitate this slow, deep, rhythmical breathing.

There are several little games you can play with yourself to help you to relax the muscles of your thorax. If they can relax, your breaths can be fuller and freer. The average individual never has to take exercises to strengthen the muscles of breathing. He will breathe as hard as his body demands. The average individual, however, often has to learn how to relax the

muscles of breathing. He holds his breath so much when he attends -- thinks, works, watches -- that the muscles get tense. The tension of attention is very hard to dispel.

Lie on your back and take a very big breath, to be followed by a sighing expiration. It is while you are relaxing that you are expiring. If you yawn after a few sights, it is a good sign. Yawning means deeper inhaling and deeper exhaling. The diaphragm is working to its limit and relaxing to its limit.

In order to get a very deep breath, you may take one of the normal depth and let it out with a hum. Hold the hum as long as you can, until you feel suffocated for air. Then you will be forced reflexly to take an extremely deep breath, which should be followed by a quiet expiration and a minute or two to let the breathing mechanism work automatically, to make up to the body for the oxygen need developed while the breath was being held.

After you have released excess tension in the diaphragm, you can attend to the rhythm of your breathing any time you are lying relatively quiet. You can count off the seconds, approximately, and notice how long you take for inhaling, how long you take for exhaling, and how long you wait at each end of the swing or beat. You will notice that the rhythm, setting any pace for a minute or two at a time. If you reduce the pace you will notice that the depth of the inhalation will increase. That is what happens in sleep very often. Of course, you cannot modify both rhythm and depth, for the amount of air you inhale is determined by the amount of oxygen your body needs. All you can do with these breathing games is to help your diaphragm to relax, and also to keep your mind off disturbing thoughts. Physical techniques are very subtle ways of controlling the mind.

The last trick in this list of ten to induce sleep is the most effective, but really the hardest for most individuals. It demands that you get rested

before trying to sleep. Every person will have to work out his own techniques, because only he can know what has been making him tired. Each man or woman has his or her own way of getting tired. Every type of occupation can be carried to an extreme that causes fatigue. What looks like diversion or even "doing nothing" to one man may be draining another man to serious overtension. Tossing a ball back and forth may be a let-down to a business man; but, to the professional athletes who have to play strenuous ball games as their life work it constitutes a great source of strain. An athlete cannot go to sleep immediately after a serious competition. Sitting at a desk may look like the easiest work in the world to a postman; but, to the president of a big industrial concern, it constitutes the means through which he may drain himself close to a breakdown. He cannot lie down on a couch and drop right off to sleep immediately after he has concluded a very important "deal."

Some people work at one thing, some people work at another. Some people perform before footlights, to great audiences. Some people spend their time thinking out mathematical formulas. Some people drive huge buses or great aeroplanes. Some people think out socio-economic problems. Some people shoot guns in battles that engender more socio-economic problems. All these people get tired and need sleep.

If people carry on their work too long under too trying circumstances, they become exhausted or break down. Before that limit is reached, however, they are in need of sleep. It is not easy to get to sleep in the early stages of fatigue -- when the body and mind are keyed up with and from effort. It is only when exhaustion comes that they "fall in their tracks."

In the hypertensive, or earlier states of fatigue is when people long for the respite of sleep. It is for people in that state, or for people who are not very well and therefore fatigue very easily, that this article has been written. They are the fine, ordinary people of this world who work or worry hard enough to become uncomfortable and tense, and who are protected

enough or have sense enough to get relief from overwork before they become exhausted.

These people will have to learn not to get too tired before trying to go to sleep. They will have to find forms of diversion and let down just right for themselves. They will have to develop a philosophy of life which straightens out some of the most annoying problems of living, and which places the self in proper relationship with other selves and with the universal self; so that their own individual causes of tension can be sloughed off quickly, and they can see themselves in a humorous light, as little pollywogs in a very big pond. When life takes on the dimensions and aspects of a big pond and each individual of a pollywog, tension becomes less of a problem and sleep something easy to acquire.

BIBLIOGRAPHY

The general principles illustrated above were first discussed by Josephine L. Rathbone, in her book entitled "Relaxation" (Bureau of Publications, Teachers College, Columbia University, New York, 1943.) You might like to study this popularly written book, for more ideas about how you may learn to relax.

Other recent books with particular suggestions on this problem are "You Can Sleep Well" by Edmund Jacobson (Whirrlesey House) and "Release from Nervous Tension" by David Harold Fink (Simon & Schuster.)

REMEDIAL EXERCISE PROCEDURES FOR FRACTURED HUMERUS CASES

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In the early stages of recovery following a simple or compound fracture, the application of the cast and stabilized position of the arm is very important. The stress in position is to benefit the weaker muscle groups of the shoulder girdle so that the physical rehabilitation period will be considerably shortened. According to Dr. H. E. Mock the application and use of the airplane splint is essential in accomplishing this purpose and the weaker muscles are given preference over the stronger.

Early active motion as indicated by progressive X-ray reports showing adequate bone caluoformation is recommended by medical authority and the application and use of heat and massage is a desirable phase of the program. These early phases of recovery are of a passive nature and are important in the accomplishment of good functional results. Because of this early treatment, locked elbows very seldom result, which are caused by shortened muscle tendons and possible calus deposits and adhesions within the joint.

As fracture lines progressively heal, more active type exercise may be given and as suggested by Cmdr. J. D. Miller MC.U.S.N.R., head Orthopedic Surgeons (during his stay at the hospital) "active exercise by the patient under proper supervision, is one of the most beneficial methods leading to early anatomical and functional recovery with little danger of further injury."

This statement coincides with my theory of application in the remedial program with supervision there is little danger of creating further injury to the patient with the end results being decidedly hastened.

In many cases the shoulder girdle becomes involved due to the maintained static position during the splinting period. This involvement usually results in lack of normal flexibility most likely due to adhesions within the joint and muscular shortening with atrophy. As fracture healing progresses, movement by passive and active exercises to this area may be given. Progress to normal function is usually dependent on the time of immobilization and the individual difference factor.

Another problem in which time plays an important factor is the obtaining of full normal joint (elbow) extension. Progress of extension to 170-75° may be accurately recorded but in many cases, observed and worked with, the last 5°-10° of extension varies considerably with preceeding functional recovery. In observations and discussions, active type exercises or activities are very beneficial in accomplishing results. Activities involving extension movements with emphasis on powerful triceps contractions are good in baseball throwing, golf, basket shooting, tennis strokes, dart throwing, etc.

The following exercise program has been used successfully in the Remedial Exercise cases I have dealt with --

REMEDIAL EXERCISES FOR SPECIFIC DISABILITIES

Fractured Humerus Case Exercises

A. Shoulder area exercises to increase flexibility

I. Without apparatus - with & without assistance

1. Forward elevation of shoulder
2. Shoulder circumduction (emphasizing forw. & backw. movements)
3. Shoulder shrug (elevation & lowering)
4. Adduction of arm front & behind body (horizontal)
5. Backward elevation of shoulder

II. With use of apparatus

1. Shoulder wheel
2. Air Corp apparatus to increase mobility through side elevation, forward elevation, (hyper) extension, rotation.

3. Stall bars for handing

4. Finger Ladder

B. Shoulder area exercises to rebuild musculature (apparatus)

1. Pulley weights

(a) flexion of arm

(b) hyperextension of arm

(c) abduction extension

(d) adduction extension

(e) upw. rotation of scapula (elbows bent, side upw. shoulder level)

(f) downw. rotation of scapula (elbows bent, side downw.)

2. Stall bars

(a) partial pull ups (feet on rings to distribute amount of weight on fracture area)

3. Rowing machine

4. Horizontal bar

(a) pull ups

5. Traveling ladder

6. Forced

C. Shoulder area exercises to rebuild musculature

1. All movements, flexion, (hyper) extension, abduction, adduction against resistance offered by instructor aid

D. Elbow joint exercises to increase flexibility

1. Extension of forearm

2. Flexion of forearm

3. Forceful flexion by applying upper trunk weight against joint. (patient's forearm on table leaning forward to apply pressure to joint.)

4. Forced extensions (stall bar grasp shoulder high deep knee bend to apply pressure to joint.)

5. Forced flexion & extension by operator

6. Forced extension with pulley weights (elbow resting on knee or table)

E. Forearm, wrist and hand exercises to increase flexibility

1. Forearm - supination & pronation

(a) supination & pronation

(b) as (a) with instructor assistance

2. Wrist exercises

(a) flexion, extension, abduction & adduction by patient.

(b) as (a) with hand held palm down near edge of table - patient increases range of motion through forced movements.

(c) wall roller for flexion & extension.

(d) circumduction of wrist.

F. Forearm, wrist, and hand exercises to rebuild musculature.

Best results are obtained through the use of apparatus.

1. Supination and pronation machine - with regulated tension.

2. Wall roller - used in flexion and extension of wrist with various circumference - regulated tension.

3. Rubber ball - squeezing and relaxing.

4. Spring grip machine.

5. Flexion and extension of fingers - forceful.

G. Water Therapy Exercises

Water therapy may be used early for these cases. The physiological and anatomical results may be observed and recorded. The advantages of the use of a pool for this remedial therapy are numerous due to freedom allowed in the space available and various activities permitted in different graded water levels.

"Purpose accomplished in upper extremity before boney union - and after union of fragments when varying degrees of muscular resistance are desired. Motion in the upper extremity can be secured earlier. Bouyancy of water makes the extremity lighter and the weight of the limb doesn't have to be supported by muscles. These muscles can then be used to secure motion. Freer point motion can then be secured. For the purpose of strengthening these muscles motion can be carried out against the resistance of the water. Meanwhile the muscles of the entire body can be utilized." - - - according to E. Jennings Jr. Lieut. Mc. U.S.N.R., U. S. Naval Hospital, Corvallis, Oregon.

The benefit of increasing mobility due to water buoyancy seem to be the outstanding contribution for this type of injury.

In the problem of increasing flexibility to the shoulder area, the water buoyancy factor aids considerably. This is especially true when the specific condition is accompanied by weak musculature. Movements that produce abduction of the arm and elevation of the shoulder are easily obtained, despite weakened musculature, by body movements necessary to produce the result with the aid of water buoyancy.

i.e. -- chest deep water -- squat to chin level and allow affected arm to raise to water level.

A minimum amount of musculature effort is required to produce this movement. In all movements that are necessary to produce buoyant flexibility, the adjustments of the individual to the varying depths of the water can be made.

Where poor circulation accompanies this condition (fractured humerus) the equalization of water pressure to the entire area, is important. Although circulation very seldom progresses to the "blue" stage; the low temperature of the affected areas are noticable through touch. After each exercise period in the pool, the equalization of the temperature of the

affected area is comparable with the rest of the body. Hydro therapy exercises have a greater effect on temperature elevation than other types of remedial exercise as observed from cases studied.

Water therapy exercises (all exercises with affected area under water)

1. Shoulder circumduction.
2. Shoulder shrug (elevation & lowering.)
3. Shoulder flexion, extension and upward rotation.
4. Flexion and extension (Hyper) of arm.
5. Abduction and adduction of arm.
6. Extension and flexion of forearm.
7. General swimming - side stroke.

Although many of these exercises are a repetition of these done in other phases of the Remedial program, the ease in which they are accomplished, without the influence of gravity, enable a greater range of motion to be realized in all movements.

MEDICAL REHABILITATION ACTIVITIES FOR THE CATATONICS

by

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Coordination of Medical Rehabilitation activities for the catatonic group of neuropsychiatric patients has been followed for this group for about three months. It is impossible to give any proven facts, but the doctor and nurse have made this statement: "There has been a vast improvement in 85% of the patients handled."

THE LOS ANGELES PLAN

STEP I. Patients are categorized into the following groups. Advancement of patients from one group to the next is dependent upon the degree of motivation needed by the patient.

<u>Grouping</u>	<u>Characteristics of Patients</u>
0	Stuporous, regressed, negativistic
1	Inactive, poor contact, no spontaneity
2	Fairly active, fair contact, some spontaneity
3	Good contact, participates in group games, spontaneous activity

STEP II. Weekly conferences are used to discuss the patient's cases, coordinate activities, and reach decisions on mutual problems such as advancing patient from one group to another. The representatives in direct contact with this group of patients initiate and assume responsibility for these weekly conferences. The representatives include:

Occupational Therapy Aide	Ward Nurse
	Head Attendant
Physical Therapy Aide	Ward Doctor
	Corrective Physical
	Rehabilitation Instructor

STEP III. The following schedule is used:

	9 AM - 9:45 AM	9:45 - 10:30	10:30 - 11:15	11:15 - 12:00
Occupational Therapy	Groups 0 & 1	Groups 2 & 3	Groups 0 & 3	Groups 1 & 2
Physical Therapy	2	0	1	3
Corrective Phys. Rehab.	3	1	2	0

Corrective Physical has the 0-group for outdoor gym in afternoons as well as for swimming in the mornings.

ADVANTAGES OF THE LOS ANGELES PLAN

1. Insures a more consistent approach in the handling of each neuro-psychiatric patient by the staff in accordance with the Medical Rehabilitation prescription written by the ward doctor.
2. Makes the patient more receptive to psycho-therapy treatment by providing an integrated schedule of outdoor, strenuous activities with the various forms of hydro-therapy treatment given by Physical Therapy, and the indoor, sedentary program of Occupational Therapy.
3. Develops the "team" idea in Rehabilitation, in which the doctor of each ward acts as chairman.

ACTIVITIES GIVEN BY CORRECTIVE PHYSICAL REHABILITATION TO VARIOUS GROUPS

"0" group: Approximately 20 patients in group, two instructors. Their activities include swimming each morning for five days a week for periods of 45 minutes. In the afternoon from 2 to 3 o'clock, we put these patients through tumbling, volleyball catch, soccer ball kicking and chin ups. We also use the exercycle for the extremely regressed patients. This group requires constant assistance.

"1" group: Their activities include rhythmic exercises daily. This exercising to music produces very good results. In addition, this group's program consists of softball catch, football passing, teter ball, and a free play period once a week, allowing the patient to choose whatever activity appeals to him. This is given for a definite reason, and should give the instructor an opportunity to see what progress the individuals are making towards spontaneous participation in activities, and, if spontaneous, what activities the patients are interested in. Notes are taken on each individual's behavior during this free period, and his activity schedule is adjusted accordingly.

"2" group: The program for the group "2" is a little more advanced than group "1". Whereas in group "1" we confine ourselves to two count exercises, our group "2" are capable of executing four count exercises.

We prefer to have this exercising done to music, which at present consists of a piano and records, amplified through public address system. This group will absorb teaching of various skills, such as volleyball or the setup shot in basketball. Included in the program for this group are all those activities previously mentioned for groups "0" and "1", the primary difference being that group "2" is more advanced and is able to execute more difficult movements with less assistance from instructor.

"3" group: Includes those patients who are ready for group games. They are very proficient in rhythmic and can do at least one or more of the following activities very well: basketball, softball, volleyball, bar work, rings, parallel bar, weight lifting, tennis, badminton, golf and boxing. We have stimulated quite an interest in boxing for carefully selected patients. We think that, for certain patients selected, this has been very valuable.

Note- With "0" and "1" patients, we have been very successful with a rope drill. We take a rope and tie the ends together, forming a circle 15' in diameter. The patients are placed alongside each other, and are instructed to pick up the rope, and at this point, we introduce various exercises. We often sing songs through this period. With encouragement, some of the patients will join in and sing.

* * * * *

Association Members:

At this point I'd like to introduce an idea-- wishful thinking perhaps on my part but one which I believe merits future consideration and discussion by this Association.

Briefly, my thought is that a Committee, chosen from our own ranks, be appointed to investigate the possibilities of the formation of a NATIONAL RESEARCH CENTER FOR CORRECTIVE REHABILITATION work.

I visualize this RESEARCH CENTER project, patterned after publicly donated funds, such as the National Cancer Research, National Tubercular Research Center, as Nation wide in scope, similar in operation, both from an organizational as well as functional aspect, to other long established Research groups.

What work of such a RESEARCH CENTER would be carried out by a centralized "clinical" unit--and such findings as deemed beneficial, made known to all Corrective Rehabilitation programs-- whether conducted by individ-

uals such as doctors etc.--or by groups--namely our hospitals, clinics, universities and colleges or government insititutions, throughout the country.

It is not my intent or purpose here, to detail the structure or form--so to speak--of such a project regarding the physical plant or personnel set up. Rather, to emphasize the obvious possibilities of benefits derived, due to the creation and functioning of such a proposed undertaking. Sensing these possibilities I believe if a NATIONAL RESEARCH CENTER could be sponsored and set up as an operating unit--any well organized plan to encourage public support and donation, would gain acceptance and inevitably succeed.

But unlike Drew Pearson I refuse to make any predictions of the future. My concern in the idea of a N.R. Center concerns only the present. What, if any, are the merits of such an idea? What, if any-thing, can be done about it?

Thus I leave the matter solely as the germ of an idea--a thought for consideration--an invitation to further discussion. Let me hear from you in regards to this project.

Paul Roland
Director Publications and Research



